

## **REMARKS**

After a careful review of the Examiner's comments in the outstanding Office Action, a number of claims have been amended to more clearly set forth the present invention. Other claims have mainly been rewritten in independent form solely for purposes of readability. Several new claims, also allowable, have been added.

A device which embodies the present invention takes into account an illumination or candela output setting to limit the peak charging current which occurs after each flash of the illumination element to a predetermined value. Thus, such units are advantageous in that they are more energy efficient on a repetitive basis, per flash, once electrical energy has been applied to cause them to flash. Hence, devices in accordance with the present invention when coupled together on a control loop limit the total peak current the loop is required to carry after each flash of the illumination element.

Unlike the claimed invention, Ha et al. U.S. Patent 6,661,337 discloses circuitry which only limits current draw by a device when the electrical energy is initially applied. Referring to Fig. 1 of Ha et al., when power is first applied at the "power input" port via cables P an initial current surge may occur since the device will probably be fully discharged. However, the circuitry therein limits this turn on peak current by providing a capacitor C5 in power regulator 14, best seen in Fig. 16-6 thereof, which limits initial inrush current as illustrated in Fig. 16-5 thereof. Additionally, circuitry of Fig. 17 thereof incorporated into power switching control circuitry 16, during this startup interval, provides additional current limiting by means of resistor R25. As shown in Fig. 18C thereof, and described in Col. 10, lines 14-28 of Ha et al., transistor Q11 is open circuited for approximately 500 milliseconds when power is initially applied at the power input port via cables P. During this 500 milliseconds, current draw through the power switch and control circuitry 16 for purposes of charging the storage capacitor 20-1 (the storage element which discharges through the illumination element to provide the light output) has a peak value limited by the 1K resistor R25. Subsequent to the 500 millisecond interval, switching

transistor Q12 drives transistor Q11 to a conducting state thereby bypassing the current limiting resistor R25.


None of the circuitry of Figs. 16-6 and 17 of Ha et al. is coupled to the model sensing port 30a or model select switch 30. The current limiting processes which are described on Col. 10, lines 14-28 of Ha et al. take place independently of any candela output setting for the unit. Further, subsequent to an application of the electrical energy to the power regulator 14 neither the circuitry of Fig. 16-6 nor the circuitry of Fig. 17 of Ha et al. address repetitive peak current demands which occur subsequent to an initial flash of the illumination element 20-2 due to the application of power.

For all of the above reasons, none of the pending claims are anticipated by Ha et al. Allowance of the application is respectfully requested.

The Commissioner is hereby authorized to charge any fees which may be required in connection with filing this Amendment to Deposit Account No. 23-0920. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

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